



## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

**Region 6 Laboratory**  
Environmental Services Branch  
10625 Fallstone Road, Houston, TX 77099  
Phone: (281)983-2100 Fax: (281)983-2248

### Final Analytical Report

Site Name -----CES Environmental Svcs, Inc.  
Sample Collection Date(s)-- 11/07/14  
Contact----- Gary Moore, (6SF-PR)  
Report Date----- 12/03/14  
Project #----- 15SF022  
Work Order(s)----- 1411006

#### Analyses included in this report:

ABN 8270 Low Level	ABN 8270 QQQ DNTs
ABN TCLP 1311/8270	P/P 8081 (Chlordane)
P/P TCLP 1311/8081	P/P TCLP 1311/8081 (Chlordane)
TCLP 1311 ABN/Pest Prep	

### Report Narrative

#### **Methods 1311/8081 (Chlordane):**

**Batch B4K1304:** Chlordane recovery fails low in MS1 using advisory limits of 70-130%. The RPD fails for the pair. The low recovery in MS1 is believed to be matrix related; the BS is acceptable. Even though Chlordane recovered low in MS1, the non-detect in source sample 1411006-02 is substantiated because calibration includes points down to 25% of the RL. The non-detect was also substantiated by performing overlays of chromatograms below the hazard limit. Chlordane was not detected.

#### **Methods 1311/8081 (Heptachlor/Heptachlor epoxide):**

**Batch B4K1802:** The surrogate TCMX fails marginally low in sample 1411006-02 but should not affect the data. TCMX recoveries in MS1/MSD1/MS2 are similar using this source sample. All Heptachlor and Heptachlor epoxide recoveries are acceptable. MS1/MSD1 are spiked at mid-level concentrations (100 ug/L). MS2 is a low level matrix spike at 4 ug/L (i.e. 1/2 the hazard limit of 8 ug/L). This matrix spike (MS2) was performed to ensure these analytes could be recovered at 1/2 the hazard limit in the matrix.

## **Report Narrative (cont'd)**

### **Methods 1311/8270 (2,4-Dinitrotoluene and Hexachlorobenzene):**

Originally both samples were logged in for both 2,4-Dinitrotoluene (2,4-DNT) and Hexachlorobenzene (HCB). It was discovered after discussion with the customer (after the extraction was performed) that these analytes were not needed for sample 1411006-02. Since this sample was used as the source for the mid-level MS/MSD, the results are reported.

**Batch B4K1302:** Both target analytes were spiked into MS1/MSD1 at mid-level concentrations (2500 ug/L) using sample 1411006-02 as the source. Both analytes were spiked into MS2 at concentrations below the hazard limit of 130 ug/L using source sample 1411006-01. MS2 is a low level matrix spike performed to ensure these analytes could be recovered at that level. 2,4-Dinitrotoluene fails high in all three matrix spikes due to interferences from the matrix. In MS2, the spectrum for 2,4-DNT could not be confirmed due to coelutions. The extracts for 1411006-01 and MS2 were re-analyzed using GC-QQQ in multiple reaction monitoring mode for confirmation purposes. The GC-QQQ analysis confirmed the absence of 2,4-DNT in sample 1411006-01 and confirmed the presence of 2,4-DNT in MS2. This confirms the non-detect reported for 2,4-DNT in sample 1411006-01 below the hazard limit. HCB recoveries were acceptable for all three matrix spikes.

The surrogate 2-Fluorobiphenyl fails high MS1 but should not affect the data.

Standard procedures for quality assurance and quality control were followed in the analysis and reporting of the sample results. The results apply only to the samples tested. This final report should only be reproduced in full.

Reporting limits are adjusted for sample size and matrix interference.

Report Approvals:

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Richard McMillin  
Region 6 Laboratory Deputy Branch Chief

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David W. McQuiddy  
Acting Region 6 Laboratory Branch Chief



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**Region 6 Environmental Services Branch Laboratory**

10625 Fallstone Road  
Houston, Texas 77099

**Sample Receipt and Disposal**

Site Name: CES Environmental Svcs, Inc.

Project Number: 15SF022

Data Management Coordinator: Christy Warren

\_\_\_\_\_  
Data Management Coordinator Signature

\_\_\_\_\_  
Date

Date Transmitted: \_\_\_\_/\_\_\_\_/\_\_\_\_

Please have the U.S. EPA Project Manager/Officer call the Data Management Coordinator at 3-2137 for any comments or questions.

Please sign and date this form below and return it with any comments to:

Christy Warren  
Data Management Coordinator  
Region 6 Laboratory  
6MD-HS

\_\_\_\_\_  
Received by and Date

Comments:

The laboratory routinely disposes of samples 90 days after all analyses have been completed. If you have a need to hold these samples in custody longer than 90 days, please sign below.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

Please provide a reason for holding:



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**ANALYTICAL REPORT FOR SAMPLES**

Station ID	Laboratory ID	Sample Type	Date Collected	Date Received
FT1004	1411006-01	Liquid	11/7/14 13:51	11/07/14 14:35
FT 506	1411006-02	Liquid	11/7/14 13:55	11/07/14 14:35



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**TCLP Semivolatiles by EPA Method 1311/8270 - GC/MS**

**Lab ID: 1411006-01**

**Station ID: FT1004**

Batch: B4K1302

Date Collected: 11/07/14

Sample Type: Liquid

Sample Vol: 4ml

Sample Qualifiers: A

Batch Matrix: Liquid

TCLP Prepared: 11/12/14

**Surrogates**

Analyte	Result µg/L	Analyte Qualifiers	% Recovery	% Recovery Limits	Prepared	Analyzed
2-Fluorobiphenyl	982		78.6	50-104	11/13/14	11/14/14
2,4,6-Tribromophenol	2,160		115	59-142	"	"

**Targets**

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
2,4-Dinitrotoluene (121-14-2)	U		125	1	11/13/14	11/14/14
Hexachlorobenzene (118-74-1)	U		125	"	"	"

DSH



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**TCLP Semivolatiles by EPA Method 1311/8270 - GC/MS**

**Lab ID: 1411006-02**

**Station ID: FT 506**

Batch: B4K1302

Date Collected: 11/07/14

Sample Type: Liquid

Sample Vol: 4ml

Sample Qualifiers: A

Batch Matrix: Liquid

TCLP Prepared: 11/12/14

**Surrogates**

Analyte	Result µg/L	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
2-Fluorobiphenyl	1,020		82.0	50-104	11/13/14	11/14/14
2,4,6-Tribromophenol	2,240		119	59-142	"	"

**Targets**

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
2,4-Dinitrotoluene (121-14-2)	U		125	1	11/13/14	11/14/14
Hexachlorobenzene (118-74-1)	U		125	"	"	"

DSH



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**TCLP Pesticides by EPA Method 1311/8081A - GC/ECD**

**Lab ID: 1411006-02**

**Station ID: FT 506**

Batch: B4K1304

Date Collected: 11/07/14

Sample Type: Liquid

Sample Vol: 4ml

Sample Qualifiers:

Batch Matrix: Liquid

TCLP Prepared: 11/12/14

**Surrogates**

Analyte	Result µg/L	Analyte Qualifiers	% Recovery	% Recovery Limits	Prepared	Analyzed
<i>Tetrachloro-meta-xylene</i>	46.6		74.6	39-111	11/13/14	11/14/14
<i>Decachlorobiphenyl</i>	72.5		116	54-133	"	"

**Targets**

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Chlordane (tech) (57-74-9)	U		25.0	1	11/13/14	11/14/14 LW



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**TCLP Pesticides by EPA Method 1311/8081A - GC/ECD**

**Lab ID: 1411006-02**

**Station ID: FT 506**

Batch: B4K1802

Date Collected: 11/07/14

Sample Type: Liquid

Sample Vol: 2.5ml

Sample Qualifiers:

Batch Matrix: Liquid

TCLP Prepared: 11/12/14

**Surrogates**

Analyte	Result µg/L	Analyte Qualifiers	% Recovery	% Recovery Limits	Prepared	Analyzed
<i>Tetrachloro-meta-xylene</i>	37.3		37.3 #	39-111	11/18/14	11/19/14
<i>Decachlorobiphenyl</i>	115		115	54-133	"	"

**Targets**

Analyte (CAS Number)	Result µg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Heptachlor (76-44-8)	U		4.00	1	11/18/14	11/19/14
Heptachlor epoxide (1024-57-3)	U		4.00	"	"	"

LW





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**TCLP Semivolatiles by EPA Method 1311/8270 - GC/MS - Quality Control**

**Batch: B4K1302**

**Sample Type: Liquid**

**Blank (B4K1302-BLK1)**

Prepared: 11/13/2014 Analyzed: 11/14/2014

**Surrogates**

ANALYTE	Result µg/L	Analyte Qualifier	Spike Level	%REC %REC	%REC Limits
2-Fluorobiphenyl	3.93		5.00	78.6	50-104
2,4,6-Tribromophenol	6.65		7.50	88.7	59-142

**Blank (B4K1302-BLK1)**

Prepared: 11/13/2014 Analyzed: 11/14/2014

**Targets**

ANALYTE	Result µg/L	Analyte Reporting Qualifiers Limit
2,4-Dinitrotoluene	U	0.5
Hexachlorobenzene	U	0.5



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**TCLP Semivolatiles by EPA Method 1311/8270 - GC/MS - Quality Control**

**Batch: B4K1302**

**Sample Type: Liquid**

**Blank (B4K1302-BLK2)**

Prepared: 11/13/2014 Analyzed: 11/14/2014

**Surrogates**

ANALYTE	Result µg/L	Analyte Qualifier	Spike Level	%REC %REC	%REC Limits
2-Fluorobiphenyl	19.6		25.0	78.6	50-104
2,4,6-Tribromophenol	39.0		37.5	104	59-142

**Blank (B4K1302-BLK2)**

Prepared: 11/13/2014 Analyzed: 11/14/2014

**Targets**

ANALYTE	Result µg/L	Analyte Reporting Qualifiers Limit
2,4-Dinitrotoluene	U	2.5
Hexachlorobenzene	U	2.5



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**TCLP Semivolatiles by EPA Method 1311/8270 - GC/MS - Quality Control**

**Batch: B4K1302**

**Sample Type: Liquid**

**LCS (B4K1302-BS1)**

Prepared: 11/13/2014 Analyzed: 11/14/2014

**Surrogates**

ANALYTE	Result µg/L	Analyte Qualifier	Spike Level	%REC %REC	%REC Limits
2-Fluorobiphenyl	4.25		5.00	85.0	50-104
2,4,6-Tribromophenol	8.20		7.50	109	59-142

**LCS (B4K1302-BS1)**

Prepared: 11/13/2014 Analyzed: 11/14/2014

**Targets**

ANALYTE	Result µg/L	Analyte Qualifiers	Reporting Limit	Spike Level	%REC %REC	%REC Limits
2,4-Dinitrotoluene	8.9		0.5	10.0	88.6	59-120
Hexachlorobenzene	9.6		0.5	10.0	95.8	76-114



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**TCLP Semivolatiles by EPA Method 1311/8270 - GC/MS - Quality Control**

Batch: B4K1302

Sample Type: Liquid

**Matrix Spike (B4K1302-MS1)**

Source: 1411006-02

Prepared: 11/13/2014 Analyzed: 11/14/2014

**Surrogates**

ANALYTE	Result µg/L	Analyte Qualifier	Spike Level	%REC %REC	Limit
2-Fluorobiphenyl	1,330		1,250	106 #	50-104
2,4,6-Tribromophenol	2,150		1,880	115	59-142

**Matrix Spike (B4K1302-MS1)**

Source: 1411006-02

Prepared: 11/13/2014 Analyzed: 11/14/2014

**Targets**

ANALYTE	Result µg/L	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC %REC	Limit
2,4-Dinitrotoluene	3,300		125	2,500		132 #	57-123
Hexachlorobenzene	2,030		125	2,500		81.4	67-121



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**TCLP Semivolatiles by EPA Method 1311/8270 - GC/MS - Quality Control**

Batch: B4K1302

Sample Type: Liquid

**Matrix Spike (B4K1302-MS2)**

Source: 1411006-01

Prepared: 11/13/2014 Analyzed: 11/14/2014

**Surrogates**

ANALYTE	Result µg/L	Analyte Qualifier	Spike Level	%REC %REC	%REC Limits
2-Fluorobiphenyl	915		1,250	73.2	50-104
2,4,6-Tribromophenol	2,210		1,880	118	59-142

**Matrix Spike (B4K1302-MS2)**

Source: 1411006-01

Prepared: 11/13/2014 Analyzed: 11/14/2014

**Targets**

ANALYTE	Result µg/L	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC %REC	%REC Limits
2,4-Dinitrotoluene	268		125	125		214 #	57-123
Hexachlorobenzene	110		125	125		88.2	67-121



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**TCLP Semivolatiles by EPA Method 1311/8270 - GC/MS - Quality Control**

Batch: B4K1302

Sample Type: Liquid

**Matrix Spike Dup (B4K1302-MSD1)**

Source: 1411006-02

Prepared: 11/13/2014 Analyzed: 11/14/2014

**Surrogates**

ANALYTE	Result µg/L	Analyte Qualifier	Spike Level	%REC %REC	%REC Limits
2-Fluorobiphenyl	1,280		1,250	103	50-104
2,4,6-Tribromophenol	2,080		1,880	111	59-142

**Matrix Spike Dup (B4K1302-MSD1)**

Source: 1411006-02

Prepared: 11/13/2014 Analyzed: 11/14/2014

**Targets**

ANALYTE	Result µg/L	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC %REC	%REC Limits	RPD RPD	RPD Limit
2,4-Dinitrotoluene	3,570		125	2,500		143 #	57-123	7.62	16
Hexachlorobenzene	1,790		125	2,500		71.6	67-121	12.8	30



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**TCLP Pesticides by EPA Method 1311/8081A - GC/ECD - Quality Control**

**Batch: B4K1304**

**Sample Type: Liquid**

**Blank (B4K1304-BLK1)**

Prepared: 11/13/2014 Analyzed: 11/14/2014

**Surrogates**

ANALYTE	Result µg/L	Analyte Qualifier	Spike Level	%REC %REC	Limit Limits
<i>Tetrachloro-meta-xylene</i>	0.135		0.250	53.9	39-111
<i>Decachlorobiphenyl</i>	0.219		0.250	87.7	54-133

**Blank (B4K1304-BLK1)**

Prepared: 11/13/2014 Analyzed: 11/14/2014

**Targets**

ANALYTE	Result µg/L	Analyte Reporting Qualifiers Limit
Chlordane (tech)	U	0.100

**Blank (B4K1304-BLK2)**

Prepared: 11/13/2014 Analyzed: 11/14/2014

**Surrogates**

ANALYTE	Result µg/L	Analyte Qualifier	Spike Level	%REC %REC	Limit Limits
<i>Tetrachloro-meta-xylene</i>	0.607		1.25	48.6	39-111
<i>Decachlorobiphenyl</i>	0.847		1.25	67.7	54-133

**Blank (B4K1304-BLK2)**

Prepared: 11/13/2014 Analyzed: 11/14/2014

**Targets**

ANALYTE	Result µg/L	Analyte Reporting Qualifiers Limit
Chlordane (tech)	U	0.500

**LCS (B4K1304-BS1)**

Prepared: 11/13/2014 Analyzed: 11/14/2014



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**TCLP Pesticides by EPA Method 1311/8081A - GC/ECD - Quality Control**

**Batch: B4K1304**

**Sample Type: Liquid**

**LCS (B4K1304-BS1)**

Prepared: 11/13/2014 Analyzed: 11/14/2014

**Surrogates**

ANALYTE	Result µg/L	Analyte Qualifier	Spike Level	%REC %REC	Limits
<i>Tetrachloro-meta-xylene</i>	0.217		0.250	86.6	39-111
<i>Decachlorobiphenyl</i>	0.273		0.250	109	54-133

**LCS (B4K1304-BS1)**

Prepared: 11/13/2014 Analyzed: 11/14/2014

**Targets**

ANALYTE	Result µg/L	Analyte Reporting Qualifiers Limit	Spike Level	%REC %REC	Limits
Chlordane (tech)	0.163	0.100	0.200	81.5	75-123

**Matrix Spike (B4K1304-MS1)**

**Source: 1411006-02**

Prepared: 11/13/2014 Analyzed: 11/14/2014

**Surrogates**

ANALYTE	Result µg/L	Analyte Qualifier	Spike Level	%REC %REC	Limits
<i>Tetrachloro-meta-xylene</i>	44.5		62.5	71.2	39-111
<i>Decachlorobiphenyl</i>	64.9		62.5	104	54-133

**Matrix Spike (B4K1304-MS1)**

**Source: 1411006-02**

Prepared: 11/13/2014 Analyzed: 11/14/2014

**Targets**

ANALYTE	Result µg/L	Analyte Reporting Qualifiers Limit	Spike Level	Source Result	%REC %REC	Limits
Chlordane (tech)	26.5	25.0	50.0		53.1#	70-130

**Matrix Spike Dup (B4K1304-MSD1)**

**Source: 1411006-02**

Prepared: 11/13/2014 Analyzed: 11/14/2014

**Surrogates**





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**TCLP Pesticides by EPA Method 1311/8081A - GC/ECD - Quality Control**

**Batch: B4K1304**

**Sample Type: Liquid**

**Matrix Spike Dup (B4K1304-MSD1)**

**Source: 1411006-02**

Prepared: 11/13/2014 Analyzed: 11/14/2014

ANALYTE	Result µg/L	Analyte Qualifier	Spike Level	%REC	%REC Limits
<i>Tetrachloro-meta-xylene</i>	46.6		62.5	74.6	39-111
<i>Decachlorobiphenyl</i>	68.9		62.5	110	54-133

**Matrix Spike Dup (B4K1304-MSD1)**

**Source: 1411006-02**

Prepared: 11/13/2014 Analyzed: 11/14/2014

**Targets**

ANALYTE	Result µg/L	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Chlordane (tech)	38.1		25.0	50.0		76.1	70-130	35.7 #	30



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**TCLP Pesticides by EPA Method 1311/8081A - GC/ECD - Quality Control**

Batch: B4K1802

Sample Type: Liquid

**Blank (B4K1802-BLK1)**

Prepared: 11/18/2014 Analyzed: 11/19/2014

**Surrogates**

ANALYTE	Result µg/L	Analyte Qualifier	Spike Level	%REC Limits
<i>Tetrachloro-meta-xylene</i>	0.138		0.250	55.1 39-111
<i>Decachlorobiphenyl</i>	0.238		0.250	95.0 54-133

**Blank (B4K1802-BLK1)**

Prepared: 11/18/2014 Analyzed: 11/19/2014

**Targets**

ANALYTE	Result µg/L	Analyte Reporting Qualifiers Limit
Heptachlor	U	0.010
Heptachlor epoxide	U	0.010

**Blank (B4K1802-BLK2)**

Prepared: 11/18/2014 Analyzed: 11/19/2014

**Surrogates**

ANALYTE	Result µg/L	Analyte Qualifier	Spike Level	%REC Limits
<i>Tetrachloro-meta-xylene</i>	0.682		1.25	54.5 39-111
<i>Decachlorobiphenyl</i>	1.26		1.25	101 54-133

**Blank (B4K1802-BLK2)**

Prepared: 11/18/2014 Analyzed: 11/19/2014

**Targets**

ANALYTE	Result µg/L	Analyte Reporting Qualifiers Limit
Heptachlor	U	0.050
Heptachlor epoxide	U	0.050

**LCS (B4K1802-BS1)**



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**TCLP Pesticides by EPA Method 1311/8081A - GC/ECD - Quality Control**

**Batch: B4K1802**

**Sample Type: Liquid**

Prepared: 11/18/2014 Analyzed: 11/19/2014

**Surrogates**

ANALYTE	Result µg/L	Analyte Qualifier	Spike Level	%REC %REC	Limit Limits
<i>Tetrachloro-meta-xylene</i>	0.158		0.250	63.4	39-111
<i>Decachlorobiphenyl</i>	0.297		0.250	119	54-133

**LCS (B4K1802-BS1)**

Prepared: 11/18/2014 Analyzed: 11/19/2014

**Targets**

ANALYTE	Result µg/L	Analyte Qualifiers	Reporting Limit	Spike Level	%REC %REC	Limit Limits
Heptachlor	0.220		0.010	0.250	87.9	67-117
Heptachlor epoxide	0.221		0.010	0.250	88.2	70-120

**Matrix Spike (B4K1802-MS1)**

**Source: 1411006-02**

Prepared: 11/18/2014 Analyzed: 11/19/2014

**Surrogates**

ANALYTE	Result µg/L	Analyte Qualifier	Spike Level	%REC %REC	Limit Limits
<i>Tetrachloro-meta-xylene</i>	46.6		100	46.6	39-111
<i>Decachlorobiphenyl</i>	97.5		100	97.5	54-133

**Matrix Spike (B4K1802-MS1)**

**Source: 1411006-02**

Prepared: 11/18/2014 Analyzed: 11/19/2014

**Targets**

ANALYTE	Result µg/L	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC %REC	Limit Limits
Heptachlor	63.5		4.00	100		63.5	55-131
Heptachlor epoxide	72.0		4.00	100		72.0	65-121

**Matrix Spike (B4K1802-MS2)**

**Source: 1411006-02**

Prepared: 11/18/2014 Analyzed: 11/19/2014

**Surrogates**



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**TCLP Pesticides by EPA Method 1311/8081A - GC/ECD - Quality Control**

**Batch: B4K1802**

**Sample Type: Liquid**

**Matrix Spike (B4K1802-MS2)**

**Source: 1411006-02**

Prepared: 11/18/2014 Analyzed: 11/19/2014

ANALYTE	Result µg/L	Analyte Qualifier	Spike Level	%REC	%REC Limits
<i>Tetrachloro-meta-xylene</i>	47.1		100	47.1	39-111
<i>Decachlorobiphenyl</i>	107		100	107	54-133

**Matrix Spike (B4K1802-MS2)**

**Source: 1411006-02**

Prepared: 11/18/2014 Analyzed: 11/19/2014

**Targets**

ANALYTE	Result µg/L	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC	%REC Limits
Heptachlor	2.72		4.00	4.00		67.9	55-131
Heptachlor epoxide	3.40		4.00	4.00		85.0	65-121

**Matrix Spike Dup (B4K1802-MSD1)**

**Source: 1411006-02**

Prepared: 11/18/2014 Analyzed: 11/19/2014

**Surrogates**

ANALYTE	Result µg/L	Analyte Qualifier	Spike Level	%REC	%REC Limits
<i>Tetrachloro-meta-xylene</i>	48.0		100	48.0	39-111
<i>Decachlorobiphenyl</i>	118		100	118	54-133

**Matrix Spike Dup (B4K1802-MSD1)**

**Source: 1411006-02**

Prepared: 11/18/2014 Analyzed: 11/19/2014

**Targets**

ANALYTE	Result µg/L	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Heptachlor	75.0		4.00	100		75.0	55-131	16.6	20
Heptachlor epoxide	82.2		4.00	100		82.2	65-121	13.3	20



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**SURROGATE SUMMARY REPORT**

**P/P TCLP 1311/8081**

**Liquid**

LAB NUMBER	TCMX	DCB
1411006-02	37.3 #	115
B4K1802-BLK1	55.1	95.0
B4K1802-BLK2	54.5	101
B4K1802-BS1	63.4	119
B4K1802-MS1	46.6	97.5
B4K1802-MS2	47.1	107
B4K1802-MSD1	48.0	118

QC LIMITS

TCMX = Tetrachloro-meta-xylene 39 - 111  
DCB = Decachlorobiphenyl 54 - 133

**P/P TCLP 1311/8081 (Chlordane)**

**Liquid**

LAB NUMBER	TCMX	DCB
1411006-02	74.6	116
B4K1304-BLK1	53.9	87.7
B4K1304-BLK2	48.6	67.7
B4K1304-BS1	86.6	109
B4K1304-MS1	71.2	104
B4K1304-MSD1	74.6	110

QC LIMITS

TCMX = Tetrachloro-meta-xylene 39 - 111  
DCB = Decachlorobiphenyl 54 - 133





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## Notes and Definitions

A	This sample was extracted at a single acid pH.
HTS	Sample was prepared and/or analyzed past recommended holding time. Concentrations should be considered minimum values.
ABN	Acid Base Neutrals (Semivolatile Compounds)
AES	Atomic Emission Spectrometer
BS	Blank Spike
CVAA	Cold Vapor Atomic Absorption
DCB	Decachlorobiphenyl
ECD	Electron Capture Detector
GC	Gas Chromatograph
ICP	Inductively Coupled Plasma
ISTD	Internal Standard
LCS	Laboratory Control Sample
MS	Mass Spectrometer
MS/MSD	Matrix Spike/Matrix Spike Duplicate
NA	Not Applicable
NPD	Nitrogen Phosphorous Detector
NR	Not Reported
PCB	Polychlorinatedbiphenyl
RL	Reporting Limit
RT	Retention Time
TCLP	Toxicity Characteristic Leaching Procedure
TCMX	Tetrachloro-meta-xylene



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U Undetected

VOA Volatile Organic Analysis

# Out of QC limits

Initial pressure in air analyses is the pressure at which the canister was received in psia (pounds *per* square inch absolute pressure).

The pH reported for Volatile liquid samples was tested using a 0-14 pH indicator strip for the purpose of verifying chemical preservation.

The statistical software used for the reporting of toxicity data is ToxCalc 5.0.32, Environmental Toxicity Data Analysis System 1994-2007 Tidepool Scientific Software.